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ABSTRACT

This paper traces the role of the classroom teacher in the development of educational research and presents a study surveying funded research conducted by classroom teachers in a number of rural Arkansas school districts. Historically, there has been a lack of reporting of research studies attributed to classroom teachers. Action research is a current attempt to collaboratively involve teachers and teacher training institutions in research. Collaborative research is part of the teacher-as-researcher movement. In this partnership, classroom teachers team up with more traditional researchers who tend to be university-based. This relationship takes advantage of the different expertise and perspectives each partner brings to the situation. To study funded research conducted by teachers between 1986 and 1991, a questionnaire was sent to 11 rural Arkansas school districts. Data were analyzed by: (1) size of the community in which the schools are located; (2) funding sources; (3) year of funding; and (4) elementary or secondary level. Large school districts generally were able to receive more funding than small districts. Elementary schools secured more overall funding than secondary schools, primarily through private sources. Overall, smaller schools had a more limited funding base. There was a significant increase in funds secured during the last two reporting years. Teacher researchers from small communities may need to establish links with local businesses to gain financial support for classroom projects and to actively seek support for small research grants. (KS)

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Rural Educators Helping Themselves as Teacher Researchers

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RURAL EDUCATORS HELPING THEMSELVES AS TEACHER RESEARCHERS

NATIONAL AND RURAL SCHOOLS CONSORTIUM
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Rural Educators Helping Themselves as Teacher Researchers

Recognition of the need for educational research by classroom teachers is finally being acknowledged in professional literature and by funding agencies (Cochran-Smith & Lytle, 1990; Fenstermacher, 1986; Strickland, 1988). To encourage teacher research, special interest groups within professional organizations such as the American Educational Research Association, the International Reading Association, and the National Council of Teachers of English have been formed and a number of sources both public and private now offer financial support for classroom teacher research. Such financial support facilitates classroom teacher research which is relevant and immediate. At the same time, conditions for the receipt of research funds have begun to require universities to work in partnership with schools (Lieberman, 1986). Additionally, these research efforts encourage rural educators to become active participants in this collaborative movement. Review of the literature of educational research reveals that teachers in rural settings encounter the same lack of recognition of their ability to design research as their urban counterparts (Travers, 1973; Wittrock, 1986) . Thus, the role of the rural classroom teacher in research design is increasing as educators of all levels share in decision-making and become valued members of research teams.

The purpose of this paper is to (a) trace the role of the classroom teacher in development of educational research, (b) present a study surveying funded research conducted by classroom teachers in a number of rural Arkansas school districts, and (c) discuss recommendations for facilitating classroom teacher research in rural settings. Initially, an historical review of classroom research is presented with followup strands focusing on action research and collaborative research.

Historical Development

Almost 100 years ago John Dewey and Colonel Parker were advocating teachers to be observers in their classrooms, to reflect on their own practices, and to develop theories about teaching and learning (Campbell, 1967, p. 144). These early figures in American education did not view teachers as mere technicians who would follow prescribed methods, but instead envisioned teachers as professionals who would be developers of a knowledge base of teaching as well as being its utilizers. Thus, although the term research was not employed, the concept of teachers retrospectively evaluating classroom interaction and modifying future practices to improve learning was being acknowledged.

Educational research defined as "scientific and disciplined inquiry using quantitative and qualitative approaches" (McMillan & Schumacher, 1989, p. 2) is a relatively new phenomenon in the history of education. Citing Halpin's work in the 4th edition of the Encyclopedia of Educational Research (Ebel, 1969)

> Schools of education have evidently provided atmospheres and conditions uncongenial to scientific research (Halpin, 1966, ch. 8). . . . The most important causes of this situation seem to have been the very strong emphasis on practicality in schools of education, a general lack of research tradition in education, and questionable attitudes of professors and students toward research (p. 1140).

Halpin was making these statements in the 1960s; thus, it can be seen that even the institutions which were training teachers were not enthusiastically supporting research, nor espousing that teachers conduct classroom research.

The 1973 publication on the Second Handbook of Research of Teaching (Travers, 1973) focused on research studies of in-service education conducted by large funded

research facilities, such as Northwest Regional Educational Laboratory, and studies from R & D centers at leading universities. The emphasis was on reporting experimental research dealing with the process of teacher education. The reported research did not suggest the possibility of classroom teachers as researchers. Teachers were viewed as technicians who were to implement the instructional programs designed by experts and tested in clinical settings. Teachers were not credited in research reports as authors or investigators. In reviewing the literature of education, there are numerous studies that report research on teaching (Ebel, 1969). Typically, studies reported in the Encyclopedia of Educational Research of 1969 dealt with investigations of teacher traits, personality, effectiveness, years of experience and qualification, process-product research, and classroom interaction.

Perusal of the 1986 edition of the Handbook of Research on Teaching also evidences the lack of reporting of research studies attributed to classroom teachers, although one of the five major divisions of the Handbook deals with teacher research and one entire section is entitled "Research on Teaching and Teachers." Many of the investigations conducted by teachers are of applied research. Educators in university settings often fail to consider the importance of teacher initiated research and instead design studies which are imposed and use teachers as data collectors. Conversely, teachers often ignore research results of studies developed in university settings citing the findings as irrelevant or applications as impractical for classroom use (Shulman, 1986; Cochran-Smith & Lytle, 1990).

During the 1980s articles suggesting the importance of teacher research made their appearance (McConaghy, 1987). With the continuing cries for educational reform has come the advent in the 1990s of calls for collaboration with the public schools for the reform of teacher training in education. True collaboration involves a partnership of teacher training institutions with the public schools. One attempt to achieve this collaboration has been through action research.

ACTION RESEARCH

Due to their mistrust of empirical research findings, classroom teachers have been the strongest advocates of action research. Consequently, they have also conducted the most research of this type. The immediate application of the findings to real problems is a wonderful motivator for classroom teachers.

University research which is often couched in eloquent theory is often viewed by classroom teachers as being highly impractical for application to daily classroom concerns and dilemmas. They are most interested in immediate phenomena that directly impact on their curriculum and instruction. Any research findings that are theoretically sound but practically faulty are subsequently discarded.

Unfortunately, university faculty have been less than receptive to the classroom teachers' efforts. Since action research often does not utilize a tight, experimental or quasi experimental research design there are numerable internal and external concerns, resulting in less than optimal generalizability of the results beyond the immediate population under investigation. This also makes replication of the research findings problematic at best.

Classroom teachers are much less concerned with the ramifications of limited generalizability since the pressing concern within their classroom environment is effectively eliminated. Also, the results of the study are of interest to other teachers who are generally willing to try anything that might work to assist them in their own situations. If the action research proves to be unreliable, then they simply continue looking for alternative approaches. If the strategy works, they are pleased that the question has been adequately investigated.

Obviously, the debate over the acceptability of action research is far from over, but the growing body of action research in the literature makes the genre more and more viable. In response to research design concerns McKernon (1988) has developed a process model

of action research that correlates design flexibility and systematic investigation in a unique manner that facilitates more generalizable action research outcomes. In addition the presence of action research makes communication and cooperation between public school personnel and university faculty a necessity rather than an option. Consequently, there has been a dramatic increase in the call for collaborative research efforts in all areas of educational research. Such collaboration builds on the strengths of both groups of researchers while minimizing the weaknesses of the research vehicle.

COLLABORATIVE RESEARCH

Collaboration implies a partnership, a shared concern or agenda. All kinds of issues and problems appear to be of interest and concern for collaborative research. Lieberman (1986) cites curricular concerns (How do students learn to write?), instructional concerns (What programs are most helpful in dealing with disruptive students?), and broader professional concerns (What are the factors that enable some teachers to maintain positive attitudes about their jobs?) among the topics to be included. Collaborative research has been described as "teams of teachers, researchers, and developers engaged concurrently in the conduct of research and development focused on resolving the concerns of classroom teachers" (Tikunoff & Ward, 1983, p. 453). In "pure" collaborative research classroom teachers are involved in every aspect of the investigations and often initiate much of the research.

Research on instruction using the collaborative process is more difficult to accomplish than research conducted without collaboration (Tikunoff & Ward, 1983). If this is true, why should collaborative research be encouraged? What are its benefits?

According to Noto (1984), one benefit of collaborative research is that it can give teachers a heightened sense of self-worth and esteem by providing favorable attention from peers, parents, administrators, and students. "When teachers see themselves as valuable, others see them that way too" (Noto, 1984, p. 221). Another benefit is that being actively engaged in research helps teachers to acquire research skills and therefore will result in an increased likelihood that teachers will use and apply their own research findings as well as those of others (Huling, Trang, & Cornell, 1981). Collaborative research can also help bridge the gap between research and practice (Pine, 1981). Ross (1984) concluded that participation in collaborative research helps teachers to develop a realistic conception and personal definition of research while Graves (1981) reported that conducting research enabled teachers to become more critical consumers and therefore increased the possibility that they would use research findings appropriately.

More than many other occupations, teaching is practiced in isolation. Collaboration breaks the grip of psychological isolation from other adults that has been a characteristic of teachers in their workplace (Sarason, 1971). By forming partnerships with each other and with local university faculty, classroom teachers begin to lessen this isolation.

A great deal has been spoken in recent years about teacher empowerment. Gene Maeroff (1988) believes teachers throughout the nation need to be seen "in a new way." He sees a change in perception as the beginning of empowerment. Maeroff's "blueprint" for empowering teachers involves their gaining in three key areas. These areas are their status, their knowledge, and their access to decision making. Perhaps involvement in collaborative research is one way to help teachers make these gains. Strickland (1988) urges teachers "to depend on themselves as decision makers and gain confidence in themselves as judges of what they know and believe." (p. 762) She feels being involved in classroom inquiry as a teacher-researcher may be an extremely important way to build teacher self-confidence and encourage feelings of empowerment.

Collaborative research is a part of the teacher-as-researcher movement. In this partnership classroom teachers team up with more traditional researchers who tend to be university-based. This relationship takes advantage of the different expertise and perspectives each partner brings to the situation. As a part of this research team, the

classroom teacher has a vital role as co-investigator. Therefore, classroom teachers are active partners, working with, and not merely being worked on, by their university colleagues.

DATA ANALYSIS

This on-going study involves a survey of twenty-two school districts in the state of Arkansas which includes schools of the Arkansas Renewal Consortium. Data presented in this paper reflect the initial findings from eleven districts which represent a statewide cross-section of rural school districts. Initially, a questionnaire was sent to each district requesting information concerning funded research conducted by teachers for the five year period 1986-1991. Data from the questionnaires were analyzed by (a) size of the community in which the schools are located, (b) funding source, (c) year of funding, and (d) elementary / secondary school level.

For ease in reporting of data, the following system was used. First, school districts were divided into three categories by community size. Category I included five school districts located in communities with under 5,000 population; Category II included three school districts in communities with populations between 5,000 and 20,000; and Category III included three school districts in communities with populations between 20,000 and 40,000. Second, funds reported were identified by source (federal, state, local, and private), year of funding and elementary / secondary level.

A comparative summary of the reported data is displayed in Table I. A significant finding is that elementary schools secured more overall funding than secondary schools, particularly through private sources. Most of the monies obtained by secondary schools came from federal and state sources. Category III districts (those with 20,000 - 40,000 population) generally were able to receive more funding than the other districts with the exception of Category II elementary schools. It is worth noting that one Category II elementary school district received approximately $200,000 in private funding during one school year. Overall, Category I schools had a more limited funding base; this is most apparent in regard to local monies. Many of the locally funded research projects by Category II and III districts were in the $100 to $500 range. Also, there was evidence of a significant increase in funds secured during the last two reporting years. Table III reports research funds secured for the secondary school level. Data in Table II reflect the same significant increase in funds for the last two reporting years at the elementary level.

TABLE I

A COMPARATIVE SUMMARY OF FUNDED TEACHER RESEARCH ACCORDING TO SCHOOL LEVEL, SCHOOL DISTRICT CATEGORY, AND FUNDING SOURCE
(11 school districts)

ELEMENTARY LEVEL BY CATEGORY

	I	II	III
Federal $	60,000	0	93,991
State $	34,000	4,013	27,375
Local $	0	2,250	12,179
Private $	31,100	237,700	17,240
TOTAL $	**125,100**	**243,963**	**150,785**
Avg. $	25,020	81,321	50,262

SECONDARY LEVEL BY CATEGORY

	I	II	III
Federal$	0	6,450	29,156
State $	20,588	1,000	60,160
Local $	0	1,500	1,570
Private $	0	3,525	4,000
TOTAL $	**20,588**	**12,475**	**105,311**
Avg. $	4,118	4,158	35,104

CATEGORIES OF SCHOOLS BY SIZE OF DISTRICT

CATEGORY I	(5 districts)	< 5,000 - population
CATEGORY II	(3 districts)	5,000 - 20,000 - population
CATEGORY III	(3 districts)	> 20,000 - 40,000 - population

TABLE II

ELEMENTARY SCHOOL FUNDING BY YEAR
(11 school districts)

CATEGORY I

YEAR	FEDERAL	STATE	LOCAL	PRIVATE	TOTAL
90-91 $	0	31,000	0	0	31,000
89-90 $	60,000	0	0	31,000	91,000
88-89 $	0	500	0	100	600
87-88 $	0	2,500	0	0	2,500
86-87 $	0	0	0	0	0
TOTAL $	60,000	34,000	0	31,100	125,100

CATEGORY II

YEAR	FEDERAL	STATE	LOCAL	PRIVATE	TOTAL
90-91 $	0	913	1,000	2,000	3,913
89-90 $	0	3,100	500	234,200	237,800
88-89 $	0	0	750	500	1,250
87-88 $	0	0	0	0	0
86-87 $	0	0	0	1,000	1,000
TOTAL $	0	4,013	2,250	237,700	243,963

CATEGORY III

YEAR	FEDERAL	STATE	LOCAL	PRIVATE	TOTAL
90-91 $	31,882	25,500	5,024	12,590	79,996
89-90 $	45,780	1,000	5,670	4,650	57,100
88-89 $	2,383	875	725	0	3,983
87-88 $	12,906	0	760	0	13,666
86-87 $	1,040	0	0	0	1,040
TOTAL $	93,991	27,375	12,179	17,240	150,785

TABLE II

SECONDARY SCHOOL FUNDING BY YEAR
(11 school districts)

CATEGORY I

YEAR	FEDERAL	STATE	LOCAL	PRIVATE	TOTAL
90-91 $	0	0	0	0	0
89-90 $	0	20,588	0	0	20,588
88-89 $	0	0	0	0	0
87-88 $	0	0	0	0	0
86-87 $	0	0	0	0	0
TOTAL $	0	20,588	0	0	20,588

CATEGORY II

YEAR	FEDERAL	STATE	LOCAL	PRIVATE	TOTAL
90-91 $	6,450	0	0	975	7,425
89-90 $	0	1,000	1,000	1,000	3,000
88-89 $	0	0	500	1,500	2,000
87-88 $	0	0	0	0	0
86-87 $	0	0	0	50	50
TOTAL $	6,450	1,000	1,500	3,525	12,475

CATEGORY III

YEAR	FEDERAL	STATE	LOCAL	PRIVATE	TOTAL
90-91 $	8,450	54,110	0	975	63,535
89-90 $	14,500	6,000	370	4,000	24,870
88-89 $	0	1,000	1,100	1,500	3,600
87-88 $	12,656	0	600	0	13,256
86-87 $	0	0	0	50	50
TOTAL $	35,606	61,110	2,070	6,525	105,311

IMPLICATIONS AND RECOMMENDATIONS

While no one overall pattern in funding for teacher research is noted from reviewing the total funds data of Table I, several trends can be seen which warrant exploration. When the sub-totals by source and category are analyzed, Category I schools from small communities had no funds from local sources. However, local sources did contribute funds for Category II and III schools. In reading the data submitted by the schools in these districts it was learned that larger districts and private sources often supported teacher research by small grants. Frequently the private awards required matching funds be obtained. It would seem that teachers and would-be researchers in small communities are at a disadvantage in obtaining research funds due to less district support and possibly fewer private sources, such as industry, being available. Small communities may also lack the presence of a teacher preperation institution with which to collaborate in grant writing. Although local funding is noted in Table II for the Category I and II school districts, it is not continuously reported for Category I and II school districts at the secondary level according to Table III. It is possible that local funding may be more subject to the effects of school budget limitations as is reflected by the lean years of 1987-88 and 1990-91 or to trends in types of research to be funded. From a study of the types of research being funded during the five year period, it was seen that most funding was for math and science projects. Currently, there is a strong emphasis on literacy as well as math and science research which may be supporting the efforts of elementary school researchers. In contrast, math/science funds are often concentrated in the secondary schools. This particular trend may account for the greater levels of reported state and federal funding at the secondary level.

Based on the data gathered thus far, it is clear that teacher-researchers need to take advantage of all funding sources. Those would-be researchers from small communities may need to establish links with local businesses to get support for specific classroom projects. In some areas local schools are adopted by industries which support instructional programs. It would seem important that teachers and schools also actively seek support for small research grants, especially in the smaller Category I communities. The review of the literature has shown that often a small grant of only $200 can be significant in teacher research where overhead costs are minimal and results are immediate and maximized.

The fact that the school districts contacted did not record information about teacher grants awarded was a revelation of significance. Schools were failing to capitalize on the positive effects of teacher secured, outside funding. It was evident that little school district attention or reward was given to successfully funded researchers. Based on contact with twenty-two school districts, it is strongly recommended that schools track teacher research efforts and make the public aware of the funding received from outside sources. It is also suggested that the results of the research be publicized to assist in broadening the base for support.

CONCLUSIONS:

Reviewing the history of the development of classroom teachers' involvement in research efforts illustrates their changing role and the regard with which teachers are held. Teacher involvement in research, not as mere collectors of data, subjects or utilizers of others' findings, but as the instigators and designers, reflects the changing role of teacher as a recognized professional. Classroom teacher research and partnership in research efforts by faculty from higher educational institutions evidence the empowerment of teachers and the professionalization of teaching. The movement to support teacher enhancement is coming from professional associations, private industries, and local school districts. Institutions of higher education are finding that to be eligible for research funding they are forced into partnerships with public schools for research development and to gain

access for data collection. Funding for such problem solving research can achieve significant results due to its relevance and immediacy.

Teacher research generates a knowledge base within the naturalistic setting. Also, it is pragmatic and cost efficient. Given these considerations the movement toward recognition of teachers as professionals and the current emphasis on classroom teacher research for educational change is easily understood. Thus, public schools and classroom teachers are no longer passive recipients, but are the decision makers in securing research dollars and controlling their utilization. However, classroom teacher research is not without its difficulties. Among the problems to be overcome are those related to knowledge of research techniques, teacher release time, cost of implementation, establishment of support groups, developing collaboration, and dissemination of research findings. Addedly, rural educators face concern for isolation from sources of information and training (Yount, 1986).

To assist rural teachers in improvement of instruction a combination of approaches are being utilized. Partnerships and collaboration projects between schools and institutions of higher education are one possibility (Bracey, 1990). Another alternative described by Stanic and Patement (1989) involves small amounts of funding to hire substitutes so that teachers in remote locations may observe and critique each other. Thus, the role of the classroom teacher, whether urban or rural, in research design is increasing as educators of all levels share in decision-making and become valued members of research teams. Through individual and cooperative research efforts, both urban and rural educators can help themselves.

To fulfill such expectations, teacher education curricula must include site-based training in pragmatic research techniques that are readily applicable to classroom settings. Schools need to consider arrangements to permit teachers release time to develop and conduct research. Knowledge of funding sources for classroom research needs to be disseminated. Support groups within schools and partnerships of teacher training institutions with the schools need to be established. Methods of conveying research findings to a broader audience of educators need to be utilized. Through collaboration of professionals across all levels of education, classroom research, the action level of education, can be enhanced and its findings disseminated. This is truly educational empowerment as it was envisioned.

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